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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,263	12/03/2003	John David Terry	1899.004US1	4654

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EXAMINER

VO, NGUYEN THANH

ART UNIT PAPER NUMBER

2618

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/727,263	TERRY, JOHN DAVID	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nguyen T. Vo	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☒ Claim(s) 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (DE 3629597 A1 with English translation, cited by examiner) in view of Kemmesies (4,438,407, cited by examiner).

As to claim 19, Fischer discloses a method, comprising receiving an amplitude modulated signal (see the "USE/ADVANTAGE" section; see also input signal U<sub>e</sub> in figure 1; see also the amplitude modulated signals on pages 3 and 6 of the English translation); processing the amplitude modulated signal with a capacitively coupled demodulator (see the capacitor C1) comprising a totem pole configuration of complementary transistors (see complementary transistors T1 and T2; see also the "EQUIVALENT-ABSTRACT" section) including a feedback signal (see the feedback circuit including resistor R2 and R7) to generate a demodulated signal (see the demodulated output U<sub>a</sub>; see also demodulating AM signals on pages 3 and 6 of the English translation). Fischer thus discloses all the claimed limitations except that Fischer employs bipolar junction transistors T1-T2 instead of metal oxide semiconductor transistors in the demodulator as claimed. However, those skilled in the art would have recognized that these metal oxide semiconductor transistors could also be used in

Art Unit: 2618

Fisher without changing the scope and spirit of Fischer's invention. In addition, Kemmesies discloses that a demodulator could be implemented by either bipolar junction transistors or MOS transistors (see column 3 lines 52-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the conventional metal oxide semiconductor transistors in Fischer as taught by Kemmesies, so that the AM demodulator could be easier to be integrated in an IC circuit.

As to claim 20, the components such as C1, L and C5 in Fischer clearly filter the AM signal as claimed.

#### ***Allowable Subject Matter***

3. Claims 1-18 are allowed.

As to independent claims 1, 13 and 16, the prior art of record fail to disclose or render obvious the connections of a PMOS transistor, a NMOS transistor and a coupling capacitor for receiving radio frequency input signals as specified in the claims.

#### ***Response to Arguments***

4. Applicant's arguments filed 10/02/2006 have been fully considered but they are not persuasive.

An English translation of Fischer (DE 3629597 A1) is now provided as requested by applicant.

Kemmesies is now provided to support the examiner's Official Notice that using either bipolar junction transistors or MOS transistors in a demodulator is known in the art.

Art Unit: 2618


**Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen T. Vo whose telephone number is (571) 272-7901. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nguyen Vo

  
11-30-2006

**NGUYEN T. VO  
PRIMARY EXAMINER**